



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/805,868	03/14/2001	Daisuke Hama	FUSA 18.452	3397
26304	7590	07/11/2005	EXAMINER	
KATTEN MUCHIN ROSENMAN LLP			NGUYEN, STEVEN H D	
575 MADISON AVENUE			ART UNIT	
NEW YORK, NY 10022-2585			PAPER NUMBER	
			2665	

DATE MAILED: 07/11/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/805,868

Applicant(s)

HAMA, DAISUKE

Examiner

Steven HD Nguyen

Art Unit

2665

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 May 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,5-9,11 and 15 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,5-9,11 and 15 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

1. This action is in response to the amendment filed on 5/19/05. Claims 2-4, 10 and 12-14 have been canceled and claims 1, 5-9, 11 and 15 are pending in the application.

Double Patenting

2. Claim 11 objected to under 37 CFR 1.75 as being a substantial duplicate of claim 15. When two claims in an application are duplicates or else are so close in content that they both cover the same thing, despite a slight difference in wording, it is proper after allowing one claim to object to the other as being a substantial duplicate of the allowed claim. See MPEP § 706.03(k).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rosen (IEEE) in view of Hurren (USP 6788681) and Miki (USP 6771662).

Rosen discloses a network for forming a VPN on a shared network and communicating via the VPN (See Abstract, Page 1 which discloses a VPN on MPLS backbone network), comprising a core network of the VPN formed by an MPLS network (See Abstract, Page 1

Art Unit: 2665

which discloses a VPN on MPLS backbone network); edge routers (Page 3-4, Sec 1.2 includes routers such CE or PE) provided at edges of the MPLS network (Page 5, Ref 1.6, MPLS backbone network) for interfacing said MPLS network and the VLAN (Page 8, Sec 3.1 for mapping VLAN with VPN), each said edge routers includes a first table that contains a VLAN-ID and VPN-ID including in MPLS packet (Page 8, Sec 3.1 for mapping VLAN with VPN); means for finding a VPN label that associated with VLAN-ID "VPN-ID" of the packet from the first table (Page 8, Sec 3.1 for mapping VLAN with VPN) and a route decision unit for deciding a route which directs an MPLS packet to a receive-side edge router; and a second table for storing forwarding labels, which specify routes decided by said route decision unit, mapped to addresses of receive-side edge routers; means for finding a receive-side edge router corresponding to a destination of a packet, finds a forwarding label, which corresponds to the receive-side edge router, from said second table; a MPLS packet generation means for generating an MPLS packet that contains the VPN label and the forwarding label and sends this MPLS packet to the MPLS network (Page 15, Sec 5 discloses using VPN label for searching a route to the receiving node in forwarding table in order to generate a mpls packet); means for finding a vlan-id which corresponds to a VPN label contained MPLS packet received from the MPLS network from the first table, generating a VLAN packet having this VLAN ID and sending this VLAN packet to a VLAN indicated by this VLAN-ID (Page 8, Sec 3.1 and Page 19, Sec 8.1, mapping VPN label with VLAN ID in order to generate VLAN packet for transmitting to a VLAN site). However, Rosen does not fully discloses a table for using to mapping VLAN ID with VPN label. In the same field of endeavor, Hurren discloses a method and system for translating between VLAN-ID and VPN ID in order to route the packet via a backbone network

Art Unit: 2665

and VLAN networks (See col. 14, lines 14-28). However, Rosen and Hurren fail to fully disclose a method and system for using VPN label for searching a route to route the packet to destination site via MPLS network. Miki discloses a method and system for using VPN label for searching a route to route the packet to destination site via MPLS network (Fig 14, Col. 17, lines 22-33).

Since, a method and system for mapping the addresses with each other is well known and expected in the art. Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention was made to apply a teach of Miki such using VPN label for searching a route in order to generate a MPLS packet into the teaching of Hurren such using a table for mapping VPN label with VLAN-ID into the teaching of Rosen. The motivation would have been to provide a scalable network for a provider.

5. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Rosen (IEEE) in view of Hurren (USP 6788681) and Lee (IEEE).

Rosen discloses a network for forming a VPN on a shared network and communicating via the VPN comprising a core network of the VPN formed by a label switching network; access networks formed by VLANs to access the core network (Page 1, See Abstract, Page 2, Sec 1.6, is MPLS network and Page 8, Sec 3.1 and Pages 18-19, Sec 8.1); interface devices (Page 3, Sec 1.3 discloses CE or PE router for interface between VLANs and MPLS network for converting between VLAN and MPLS packet for transmitting to its destination using VPN of MPLS) provided at edges of the label switching network for interfacing said label switching network and the VLANs, wherein the interface devices are edge routers provided at edges of MPLS network serving as the label switching network, said edge router includes a transmit-side edge router for converting a packet, which is sent from a VLAN, to an MPLS packet and transmitting the packet

Art Unit: 2665

to the MPLS network; and a receive-side edge router for converting the MPLS packet, which has been received from the MPLS network, to a VLAN packet and directing the VLAN packet to a VLAN that belongs to the same VPN as that of a VLAN on the transmit side. However, Rosen fails to fully disclose transmit-side edge router inserts user priority information, which is contained in a tag of a VLAN packet, into a label of an MPLS packet as IP precedence information of the MPLS network, and said receive-side edge router inserts IP precedence information, which is contained in the label of an MPLS packet, into the tag of a VLAN packet as user priority information of the VLAN. In the same field of endeavor, Hurren discloses a method and system for mapping the user priority of the VLAN packet into a COS field of VPN packet (Fig 7B and col. 13, lines 59 to col. 14, lines 14). However, Rosen and Hurren fails to disclose a method and system for inserting a priority into MPLS packet. In the same field of endeavor, Lee discloses a method and system for inserting a priority into MPLS packet (Page 483, lines 1-9).

Since, Rosen suggests QOS is a key component of VPN on MPLS. Therefore it would have been obvious to one of ordinary skill in the art at the time of invention was made to apply a teaching of Lee such inserting a user priority into MPLS packet into a teaching of Hurren such inserting the user priority of VLAN packet into a COS field of VPN packet into the teaching of Rosen. The motivation would have been to provide a reliable network.

6. Claims 5-7, 11 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rosen, Hurren and Miki as applied to claims 1 and 9 above, and further in view of Rekhtek (USP 6339595).

Rosen, Hurren and Miki fails to fully disclose an edge router which constructs the VPN and is connected to a VLAN sends another edge router an address set composed of an address of a VLAN-compatible device connected to the first-mentioned edge router and the address of this edge router, and each edge router creates a routing table based upon the received information; and said transmit-side edge router finds a receive-side edge router, which corresponds to the destination of the packet, from said routing table. In the same field of endeavor, Rekhtek discloses an edge router which constructs the VPN and is connected to a VLAN sends another edge router an address set composed of an address of a VLAN-compatible device connected to the first-mentioned edge router and the address of this edge router, and each edge router creates a routing table based upon the received information; and said transmit-side edge router finds a receive-side edge router, which corresponds to the destination of the packet, from said routing table (col. 11, lines 18-44 discloses the routing information are exchanged between the routers in order to setup a routing table) and an edge router transmits no address information to an edge router to which is connected a VLAN that has been prohibited from communicating (implicitly disclosed) and discard the packet if VLAN ID is different from the received node (implicitly disclosed).

Since, Rekhter suggests a MPLS network for carrying the MPLS packet that contain VLAN packet. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to apply a system and method for exchanging the address of the devices on the VLAN in order to establish a routing table as disclosed by Rekhter's system into a method and system of Rosen, Hurren and Miki. The motivation would have been to prevent data lost.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Steven HD Nguyen whose telephone number is (571) 272-3159. The examiner can normally be reached on 8-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Huy D. Vu can be reached on (571) 272-3155. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Steven HD Nguyen
Primary Examiner
Art Unit 2665
7/6/05